

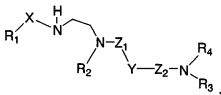
Amendments to the claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of claims:

1-28. (Cancelled)

29. (Currently amended) A compound of the formula:



wherein

X is $-CH_2-$, $-C_2H_4-$, or $-C_3H_6-$, ~~$-CH_2-CH=CH-$, $-CH=CH-CH_2-$, $-C(O)-$, $-SO_2-$, or~~
~~deleted;~~

Y is aryl, heteroaryl, C_3-C_8 cycloalkyl, C_5-C_8 cycloalkenyl, C_3-C_8 heterocycloalkyl, or C_5-C_8 heterocycloalkenyl;

each of Z_1 and Z_2 , independently, is $-CH_2-$, $-C_2H_4-$, or $-C_3H_6-$, ~~$-CH=CH-$, $-CH=N-$, $-CH=N-NR-$, $-S-$, $-O-$, $-NR-$, $-C(O)-$, or $-SO_2-$;~~

R_1 is H , C_1-C_{10} alkyl, C_3-C_{10} alkenyl, C_2-C_{10} alkynyl, C_3-C_8 cycloalkyl, C_5-C_8 cycloalkenyl, C_3-C_8 heterocycloalkyl, C_5-C_8 heterocycloalkenyl, aryl[,], or heteroaryl;

R_2 is $-A_1-B_1-D_1-E_1$;

R_3 is $-A_2-B_2-D_2-E_2$, ~~deleted, or, together with R_4 , is C_4-C_{20} cycloalkyl, C_4-C_{20} cycloalkenyl, C_4-C_{20} heterocycloalkyl, or C_4-C_{20} heterocycloalkenyl;~~ provided that if R_3 is deleted, $-Z_2-N-$ is $-CH=N-$; and

R_4 is $-A_3-B_3-D_3-E_3$ or, together with R_3 , is C_4-C_{20} cycloalkyl, C_4-C_{20} cycloalkenyl, C_4-C_{20} heterocycloalkyl, or C_4-C_{20} heterocycloalkenyl;

in which each of ~~A₁, A₂, and A₃~~, independently, is ~~-CH₂-, -C₂H₄-, -C₃H₆-, -C₄H₈-, or -C₅H₁₀-, -CH₂C(O)-, -C(O)CH₂-, -CH₂SO₂-, -SO₂CH₂-, -CH₂-CH=CH-, -CH=CH-CH₂-, -CH(CH₂OR)-, -CH(CH₂CH₂OR)-, -CH(COOR)-, -CH(CH₂COOR)-, -CH(C(O)NR₂)~~, or deleted; each of B₁, B₂, and B₃, independently, is ~~-NR-, -CH₂-, or deleted~~; each of D₁, D₂, and D₃, independently, is ~~-CH₂-, -C₂H₄-, or -C₃H₆-, -CH₂-CH=CH-, -CH=CH-CH₂-, C(O)-, SO₂-, C(O)-NR-, C(S)-NR-, NR-C(O)-, NR-C(S)-, -CH(OR)-, -CH(CH₂OR)-, -CH(CH₂CH₂OR)-, -CH(COOR)-, 1,1-cyclopropylene, or deleted~~; and each of E₁, E₂, and E₃, independently, is ~~H-, C₁-C₁₀ alkyl-, C₂-C₁₀ alkenyl-, C₂-C₁₀ alkynyl-, C₃-C₈ cycloalkyl-, C₅-C₈ cycloalkenyl-, C₃-C₈ heterocycloalkyl-, C₅-C₈ heterocycloalkenyl-, aryl[.]] or heteroaryl~~;

A₂ deleted; B₂ deleted; D₂ is deleted; and E₂ is H-, C₁-C₈ cycloalkyl-, C₅-C₈ cycloalkenyl-, C₃-C₈ heterocycloalkyl-, C₅-C₈ heterocycloalkenyl-, aryl-, or heteroaryl;

A₃ is -CH₂-, -C₂H₄-, -C₃H₆-, -C₄H₈-, -C₅H₁₀-, or deleted; B₃ is deleted; D₃ is deleted; and E₃ is C₁-C₈ cycloalkyl-, C₅-C₈ cycloalkenyl-, C₃-C₈ heterocycloalkyl-, C₅-C₈ heterocycloalkenyl-, aryl-, or heteroaryl; and

each R, independently, being H or C₁-C₁₀ alkyl.

30-31. (Cancelled)

32. (Currently amended) The compound of claim [[31]] 29, wherein X is -CH₂- or -CH(CH₃)-, Y is phenyl, Z₁ is -CH₂- or -SO₂-, and Z₂ is -CH₂- or -SO₂-.

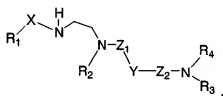
33-34. (Cancelled)

35. (Currently amended) The compound of claim 32, wherein R₃ is ~~-A₂-B₂-D₂-E₂ or, together with R₄, is C₄-C₂₀ heterocycloalkyl or C₄-C₂₀ heterocycloalkenyl~~; A₁ is ~~-C₂H₄- or -CH(CH₃)CH₂-~~; A₂ is ~~-C₂H₄- or deleted~~; A₃ is ~~-CH₂-, -C₂H₄-, -C₃H₆-, -CH(CH₂OH)-, -CH(COOH)-, -CH(CH₂OCH₃)-, -CH(CH₂CH₂OH)-, -CH(CH₂COOH)-, or deleted~~; B₁ is ~~-NH-, -N(CH₂CH₂OH)-, or -N(CH₂CH₃)-~~; D₁ is ~~-CH₂-[.]] or~~

~~-CH(CH₃)-, CH(CH₂OH)-, CH(CH₂CH₂OH)-, or deleted; D₂ is -CH₂- or deleted; D₃ is -CH₂-, CH(OH)-, CH(COOH)-, 1,1-cyclopropylene, or deleted; E₁ is H-, C₃-C₈ heterocycloalkyl, aryl, or heteroaryl; E₂ is H-, aryl, or heteroaryl; and E₃ is aryl, heteroaryl, C₃-C₈ cycloalkyl, C₅-C₈ cycloalkenyl, or C₃-C₈ heterocycloalkyl.~~

36-46. (Cancelled)

47. (Currently amended) A pharmaceutical composition comprising a compound of the formula:



wherein

X is -CH₂-, -C₂H₄-, or -C₃H₆-, ~~-CH₂-CH=CH-, CH=CH-CH₂-, C(O)-, SO₂-, or deleted;~~

Y is aryl, heteroaryl, C₃-C₈ cycloalkyl, C₅-C₈ cycloalkenyl, C₃-C₈ heterocycloalkyl, or C₅-C₈ heterocycloalkenyl, ~~or deleted;~~

each of Z₁ and Z₂, independently, is -CH₂-, -C₂H₄-, or -C₃H₆-, ~~-CH=CH-, CH=N-, CH=N-NR-, S-, O-, NR-, C(O)-, or SO₂;~~

R₁ is H-, C₁-C₁₀ alkyl, C₂-C₁₀ alkenyl, C₂-C₁₀ alkynyl, C₃-C₈ cycloalkyl, C₅-C₈ cycloalkenyl, C₃-C₈ heterocycloalkyl, C₅-C₈ heterocycloalkenyl, aryl[[.]] or heteroaryl;

R₂ is -A₁-B₁-D₁-E₁;

R₃ is -A₂-B₂-D₂-E₂, ~~deleted, or, together with R₄, is C₄-C₂₀ cycloalkyl, C₄-C₂₀ cycloalkenyl, C₄-C₂₀ heterocycloalkyl, or C₄-C₂₀ heterocycloalkenyl; provided that if R₃ is deleted, -Z₂-N- is -CH=N-; and~~

R₄ is -A₃-B₃-D₃-E₃ or, together with R₃, is C₄-C₂₀ cycloalkyl, C₄-C₂₀ cycloalkenyl, C₄-C₂₀ heterocycloalkyl, or C₄-C₂₀ heterocycloalkenyl;

in which each of A₁, A₂, and A₃, independently, is -CH₂-, -C₂H₄-, -C₃H₆-, -C₄H₈-, or -C₅H₁₀-, ~~-CH₂C(O)-, C(O)CH₂-, CH₂SO₂-, SO₂CH₂-, CH₂-CH=CH-, CH=CH-~~

~~CH₂, -CH(CH₂OR), -CH(CH₂CH₂OR), -CH(COOR), -CH(CH₂COOR), -CH(C(O)NR₂), or deleted; each of B₁, B₂, and B₃, independently, is -NR-, -CH₂-, or deleted; each of D₁, D₂, and D₃, independently, is -CH₂-, -C₂H₄-, or -C₃H₆-, -CH₂-CH=CH-, -CH=CH-CH₂-, C(O)-, SO₂-, C(O)NR-, C(S)NR-, NR-C(O)-, NR-C(S)-, -CH(OR)-, -CH(CH₂OR)-, -CH(CH₂CH₂OR)-, -CH(COOR)-, 1,1-cyclopropylene, or deleted; and each of E₁, E₂, and E₃, independently, is H-, C₁-C₁₀ alkyl-, C₂-C₁₀ alkenyl-, C₂-C₁₀ alkynyl-, C₃-C₈ cycloalkyl-, C₅-C₈ cycloalkenyl-, C₃-C₈ heterocycloalkyl-, C₅-C₈ heterocycloalkenyl-, aryl[[.]] or heteroaryl;~~

A₂ deleted; B₂ deleted; D₂ is deleted; and E₂ is H-, C₁-C₈ cycloalkyl-, C₅-C₈ cycloalkenyl-, C₃-C₈ heterocycloalkyl-, C₅-C₈ heterocycloalkenyl-, aryl-, or heteroaryl;

A₃ is -CH₂-, -C₂H₄-, -C₃H₆-, -C₄H₈-, -C₅H₁₀-, or deleted; B₃ is deleted; D₃ is deleted; and E₃ is C₁-C₈ cycloalkyl-, C₅-C₈ cycloalkenyl-, C₃-C₈ heterocycloalkyl-, C₅-C₈ heterocycloalkenyl-, aryl-, or heteroaryl; and

a pharmaceutically acceptable carrier.

48-50. (Cancelled)

51. (Currently amended) The composition of claim [[49]] 47, wherein X is -CH₂- or -CH(CH₃)-, Y is phenyl, Z₁ is -CH₂- or -SO₂-, and Z₂ is -CH₂- or -SO₂-.

52-54. (Cancelled)

55. (Currently amended) The composition of claim 51, wherein R₃ is -A₂-B₂-D₂-E₂ or, together with R₄, is C₄-C₂₀ heterocycloalkyl or C₄-C₂₀ heterocycloalkenyl; A₁ is -C₂H₄- or -CH(CH₂)CH₂-; A₂ is -C₂H₄- or deleted; A₃ is -CH₂-, -C₂H₄-, -C₃H₆-, -CH(CH₂OH)-, -CH(COOH)-, -CH(CH₂OCH₃)-, -CH(CH₂CH₂OH)-, -CH(CH₂COOH)-, or deleted; B₁ is -NH-, -N(CH₂CH₂OH)-, or -N(CH₂CH₃)-; D₁ is -CH₂-[[.]] or -CH(CH₃)-, -CH(CH₂OH)-, -CH(CH₂CH₂OH)-, or deleted; D₂ is -CH₂- or deleted; D₃ is -CH₂-, -CH(OH)-, -CH(COOH)-, 1,1-cyclopropylene, or deleted; E₁ is H-, C₁-C₈

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~~heterocycloalkyl, aryl, or heteroaryl~~; E₂ is H, ~~aryl, or heteroaryl~~; and E₃ is aryl, heteroaryl, C₃-C₈ cycloalkyl, C₅-C₈ cycloalkenyl, or C₃-C₈ heterocycloalkyl.

56-57. (Cancelled)